

Course Specification

Name of Institution Mahidol University
Campus/Faculty/Program ASEAN Institute for Health Development

Section 1 General Information

1. Code and Course Title: ADPM 647 Health and Service Data for Decision-Making and Evidence Informed Policy
สอสม ๖๔๗ ข้อมูลสุขภาพและบริการเพื่อการตัดสินใจและความชัดเจนในนโยบายที่แจ้ง

2. Total Credits: 3 (3-0-6) credits (Lecture - Practice - Self Study)

3. Curriculum and Course Category

Master of Primary Health Care Management (International) (Elective Course)

4. Course Coordinator/Course Instructors

4.1 Course Coordinator

Lect. Dr. Tarinee Buadit

Contact: ASEAN Institute for Health Development

Tel. 02 441 9040 ext 54

Email: tarinee.bud@mahidol.edu

4.2 Course Instructors

Lect. Dr. Tarinee Buadit

Contact: ASEAN Institute for Health Development

Tel. 02 441 9040 ext 54

Email: tarinee.bud@mahidol.edu

Assoc.Prof. Dr.Orapin Laosee

Contact: ASEAN Institute for Health Development

Tel. 02 441 9040 ext 63

Email: orapin.lao@mahidol.edu

Assoc.Prof. Dr.Cheerawit Rattanpan

Contact: ASEAN Institute for Health Development

Tel. 02 441 9040 ext 66

Email: cheerawit.rat@mahidol.edu

Lect. Dr. Chanida Lertpitakpong

Contact: ASEAN Institute for Health Development

Tel. 02 441 9040-3 ext 55

Email: chanida.ler@mahidol.ac.th

Invited lecturers

5. Semester / Academic Year of Study: 2/2024

6. Pre-requisite: There are no specific prerequisite courses, but learners must be able to work with equations and perform basic mathematical calculations.

7. Co-requisite: none

8. Venue: ASEAN Institute for Health Development, Mahidol University

9. Latest Date of Course Specification Development or Modification: 1 August 2024

Section 2 Aims and Objectives

1. Course Aims

Upon successful completion of this course, the learners will be able to:

- 1.1 Describe the principle of health-related data to guide management decision-making
- 1.2 Identify the epidemiological surveillance databases into planning to improve health system
- 1.3 Analyze the quantitative and qualitative from different health sectors in accessing, appraising, interpreting, synthesizing, and utilizing research evidence in decision-making
- 1.4 Purpose the policy recommendations using the health and services data to enhance the improvement of primary health care

2. Objectives of Course Development/Modification

This course is designed to introduce students the important use of the health-related data to guide management decision-making. The learners will expose to the different source of quantitative and qualitative clinical and research data and the service data. In addition, the learners could be able to use technology to strengthen the technical capacity of mid-level policymakers (i.e. technical staff) in different health sectors in accessing, appraising, interpreting, synthesizing, and utilizing research evidence in decision-making.

Section 3 Course Description and Implementation

1. Course Description

The important use of the health related data to guide management decision-making; epidemiological surveillance databases; quantitative and qualitative clinical and research data and the service data; process of collecting, analyzing, and interpreting epidemiological and

health services data; the use of data to inform decision-making in both primary health care and system management; policy formulation and public health practice; technology that support data generation and analysis; telemedicine and the current application of health information systems in the Thai primary health care system; information and knowledge management emerging trends and issues

ความสำคัญของการใช้ข้อมูลสุขภาพเพื่อเป็นแนวทางการตัดสินใจเชิงบริหารข้อมูลการเฝ้าระวังทางระบาดวิทยา ข้อมูลเชิงปริมาณและคุณภาพ ข้อมูลวิจัย ข้อมูลบริการ กระบวนการเก็บข้อมูล วิเคราะห์ และแปลผลทางระบาดวิทยาและบริการสุขภาพ การใช้ข้อมูลเพื่อการตัดสินใจทางด้านบริการปฐมภูมิและการจัดการระบบ การกำหนดนโยบายและการปฏิบัติงานด้านสาธารณสุข การใช้ข้อมูลและเทคโนโลยีเพื่อวิเคราะห์การแพทย์ทางไกลและการใช้โปรแกรมข้อมูลของระบบสุขภาพในประเทศไทย ข้อมูลและการจัดการความรู้ที่เกี่ยวข้องกับประเด็นและแนวโน้มใหม่

2. Number of Hours per Semester

Lecture	45	Hours
Tutorial	0	Hour
Practice / Field Experience /Practicum	0	Hour
Self-Study	90	Hours

3. Number of hours provided for academic advice and guidance to an individual student

Every Thursday 14.00-16.00 at Building 1, 2nd floor ASEAN Institute for Health Development; Office hours (at least 2 hours/week)

Section 4 Development of the expected learning outcomes

1. A brief summary of the knowledge or skills expected to develop in students; the course-level expected learning outcomes (CLOs)

Upon the completion of the course, students will be able to:

CLO1 Describe the principle of health-related data to guide management decision-making

CLO2 Identify the epidemiological surveillance databases into planning to improve health system

CLO3 Analyze the quantitative and qualitative from different health sectors in accessing, appraising, interpreting, synthesizing, and utilizing research evidence in decision-making

CLO4 Purpose the policy recommendations using the health and services data to enhance the improvement of primary health care

2. How to organize learning experiences to develop the knowledge or skills stated in number 1 and how to measure the learning outcomes

CLOs	Teaching and learning experience management			Learning outcomes measurements			
	Lecture	Individual Work	Group Work	Test	Assignment quality	Individual Reports	Group Reports
CLO1	x	x		x	x	x	
CLO2	x	x		x	x	x	
CLO3	x		x		x		x
CLO4	x		x		x		x

Section 5 Teaching Plan and Evaluation Plan

1. Teaching Plan

Week No.	Topic	Hrs.			Teaching and Learning Activities	Instructor(s)
		Lecture	Practice	Self-study		
1	Introduction to health-related data for primary health care managers	3	0	6	Lecture, Discussion	Tarinee Baudit
2	Principle of the management of health and service data for decision-making for primary health care managers	3	0	6	Lecture, exercise	Tarinee Baudit
3	Epidemiological surveillance databases	3	0	6	Lecture, case study	Chanida Lertpitakpong
4	Applying the surveillance data based for decision making	3	0	6	Lecture, Case study	Chanida Lertpitakpong
5	Quantitative and quantitative data for decision making	3	0	6	Lecture, discussion	Orapin Laosee
6	Strengthening knowledge translation: improving international health system	3	0	6	Lecture, case study	Guest lecture
7	Accessing, appraising, interpreting, synthesizing, and utilizing research evidence in decision-making	3	0	6	Lecture, exercise	Guest lecture
8	Telemedicine and the current	3	0	6	Lecture,	Chanida

Week No.	Topic	Hrs.			Teaching and Learning Activities	Instructor(s)
		Lecture	Practice	Self-study		
	application of health information systems in the Thai primary health care system				discussion	Lertpitakpong
9	Telemedicine and the current application of health information systems in the Thai primary health care system: case study HITAP	3	0	6	Lecture, Case study	Chanida Lertpitakpong
10	Process of collecting, analyzing of health services data	3	0	6	Lecture, Case study	Tarinee Baudit
11	Interpreting epidemiological and health services data	3	0	6	Lecture, discussion	Tarinee Baudit
12	Policy formulation and public health practice based on health and services data	3	0	6	Lecture, case study	Chanida Lertpitakpong
13	Technology that supports data generation and analysis	3	0	6	Lecture, Case study	Guest lecture
14	information and knowledge management emerging trends and issues	3	0	6	Lecture, Case study	Tarinee Baudit
15	Student presentations	3	0	6	Presentation	Tarinee Baudit
	Total	45	0	90		-

2. Evaluation Plan

No.	Learning Outcomes	Evaluation Method	Week of Evaluation	Evaluation Allotment
1.	Describe the principle of health-related data to guide management decision-making	Quiz	2	10%
		Assignments	5	10%
2.	Identify the epidemiological surveillance databases into planning to improve health system	Quiz	3	10%
		Assignments	4	10%
3.	Analyze the quantitative and qualitative from different health sectors in accessing, appraising, interpreting, synthesizing, and utilizing research evidence in decision-	Assignments	7, 9	5%

No.	Learning Outcomes	Evaluation Method	Week of Evaluation	Evaluation Allotment
	making			
		Individual report	11	25%
4.	Purpose the policy recommendations using the health and services data to enhance the improvement of primary health care	Assignment	12-13	5%
		Group presentation	14-15	25%

Measurement and evaluation of student achievement

A = 85-100 %

B+ = 75– 84 %

B = 65 – 74 %

C+ = 55 – 64 %

C = 45 – 54 %

F = 0- 44 %

Section 6 Teaching Materials and Resources

1. Main Textbook and Course Materials

1. Williams I. Decision making and policy formulation: The case of health care coverage. Research Handbook on Health Care Policy 2024. p. 30-45.
2. Neshastesaz Kashi H, Goharinezhad S, Soleimanpour S, Mohammadi AH. Mapping student engagement in health professions education policy and decision-making: a scoping review. BMC Medical Education. 2024;24(1).
3. Galuska DA, Fulton JE, O’Neal LJ. Data for Decision Makers: Finding Policy, Systems, and Environmental Solutions for Public Health Problems. Preventing Chronic Disease. 2024;21.
4. Soltanisehat L, González AD, Barker K. Modeling social, economic, and health perspectives for optimal pandemic policy decision-making. Socio-Economic Planning Sciences. 2023;86
5. Robson RC, Thomas SM, Langlois ÉV, Mijumbi R, Kawooya I, Antony J, et al. Embedding rapid reviews in health policy and systems decision-making: Impacts and lessons learned from four low- and middle-income countries. Health Research Policy and Systems. 2023;21(1).

6. Nguyen DT, Van Hoang M, Dao S, Do PH, Nguyen QD, Jewell J, et al. Estimating the health impacts of sugar-sweetened beverage tax for informing policy decisions about the obesity burden in Vietnam. *PLoS ONE*. 2023;18(4 April).
7. Hess JJ, Sheehan TJ, Miller A, Cunningham R, Errett NA, Isaksen TB, et al. A novel climate and health decision support platform: Approach, outputs, and policy considerations. *Environmental Research*. 2023;234.
8. ailu M, Misganaw A, Naghavi M, Murray CJL, Tadesse L. Understanding subnational burden of diseases for better health policy decision making in Ethiopia. *Ethiopian Journal of Health Development*. 2023;37(Special Issue 2):S1-S2.
9. de Waure C, Gärtner BC, Lopalco PL, Puig-Barbera J, Nguyen-Van-Tam JS. Real world evidence for public health decision-making on vaccination policies: perspectives from an expert roundtable. *Expert Review of Vaccines*. 2023;23(1):27-38.
10. Weerasinghe K, Scahill SL, Pauleen DJ, Taskin N. Big data analytics for clinical decision-making: Understanding health sector perceptions of policy and practice. *Technological Forecasting and Social Change*. 2022;174.
11. Watts PN, Netuveli G. Costs of healthy living for older adults: the need for dynamic measures of health-related poverty to support evidence-informed policy-making and real-time decision-making. *Public Health*. 2022;212:1-3.
12. Tricco AC, Straus SE, Ghaffar A, Langlois EV. Rapid reviews for health policy and systems decision-making: more important than ever before. *Systematic Reviews*. 2022;11(1).
13. Thompson J, McClure R, Scott N, Hellard M, Abey Suriya R, Vidanaarachchi R, et al. A framework for considering the utility of models when facing tough decisions in public health: a guideline for policy-makers. *Health Research Policy and Systems*. 2022;20(1).
14. Ndoungue VF, Tiwoda C, Gnigninanjouena O, Bataliack S, Mbondji E, Labat A. National Health Observatory: A tool to strengthen the health information system for evidence-based decision making and health policy formulation in Cameroon. *Health Policy OPEN*. 2022;3.

2. Important Documents and Information

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3. Suggested Learning Resources

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Section 7 Course Evaluation and Improvement

1. Evaluation Strategies for Course Effectiveness by Students

1.1 Evaluation of students by peer students to be done by the Faculty of Graduate Studies (Education Services Section)

1.2 Student evaluation to be done by Course Directors at the end of the course

- Course content
- Course management
- Suggestions
- Overall opinion

2. Teaching Evaluation Strategies

- Observation of student behaviors, attitudes, and academic contents during activities of class participation
- Students self-assessments and analysis
- Peer assessments and feedback
- Question and answer
- Volunteering in class organization and designing in summarization of class activities

3. Teaching Improvement

Presentation of course development, techniques used in teaching, and improvement with the participation of program management committee members of AIHD at program management committee meetings.

4. Verification of Students Achievements in the Course

- Analysis of students' learning outcomes using scores from class attendance, individual report activity and presentation
- Observing changes in perception and attitude of individual students and development i.e. personality, presentation, participation in working group, participatory action

5. Course Revision and Improvement Plan

- Meeting with all lecturers teaching the course to discuss and review the course before the semester starts and before each period of teaching
- Teaching materials sharing among lecturers for mutual learning, understanding, and development

- Meeting with all lecturers teaching the course to discuss and review after the course closed to consider requests, feedback, and suggestions of students and make minor improvements to the course syllabus and materials before the next academic year.

Appendix

Relations between the Course and the Program

Program Learning Outcomes

PLO1 Exhibit responsibility, discipline, and honesty according to organizational rules, academic and professional ethics, and morality.

PLO2 Explain the interconnection of multidisciplinary knowledge associated with primary health care management.

PLO3 Design research in primary health care management based on systematic process.

PLO4 Defend in significant ways with questions or points of view or controversies about the area of the primary health care system.

PLO5 Interact professionally when working as a team as both leader and member for solving and managing work assigned.

PLO6 Perform statistical data analysis as they support evaluating, planning, and managing the primary health care system.

PLO7 Communicate clearly and effectively to an array of audiences for a range of purposes.

PLO8 Use information technology effectively to support the study, research, and their efforts to accomplish a specific purpose.

Course	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
Elective course								
ADPM 667 Health and service data for decision-making and evidence informed policy 3 (3-0-6)	R	R	R	R	I	I	R	P

I = ELO is introduced & assessed P = ELO is practiced & assessed

R =ELO is reinforced & assessed M = Level of Mastery is assessed

Curriculum Mapping

● Primary responsibility

○ Secondary responsibility

Course Objectives (CLOs)	Program learning domains												
	1. Morality and ethics			2. Knowledge		3. Intellectual skills			4. Interpersonal Skills and Responsibility		5. Numerical Analysis Skills, Communication and Use of Information Technology		
	1.1	1.2	1.3	2.1	2.2	3.1	3.2	3.3	4.1	4.2	5.1	5.2	5.3
Describe the principle of health-related data to guide management decision-making	●	○		●	●			○					
Identify the epidemiological surveillance databases into planning to improve health system						●	○	●		○			
Analyze the quantitative and qualitative from different health sectors in accessing, appraising, interpreting, synthesizing, and utilizing research evidence in decision-making			○	●	●						●		●
Purpose the policy recommendations using the health and services data to	○		○		●	○		○	●	●	○	●	●

Course Objectives (CLOs)	Program learning domains												
	1. Morality and ethics			2. Knowledg e		3. Intellectual skills			4. Interperson al Skills and Responsibili ty		5. Numeral Analysis Skills, Communication and Use of Information Technology		
	1.1	1.2	1.3	2.1	2.2	3.1	3.2	3.3	4.1	4.2	5.1	5.2	5.3
enhance the improvement of primary health care													

Expected Outcome (TOF,2)

1. Morality and Ethics

- 1.1 Exhibits discipline, honesty, and punctuality
- 1.2 Behave according to morals and ethics of academic and professional practice
- 1.3 Avoid academic plagiarism

2. Knowledge

- 2.1 Explain the theoretical and practical knowledge associated with primary health care management
- 2.2 Explain the interconnection of various fields of knowledge in primary health care management

3. Intellectual skills

- 3.1 Perform the manners of continuously seeking knowledge

3.2 Design the research to solve the problem identified in the primary health care management system

3.3 Defend in significant ways with questions or points of view or controversies in related fields.

4. Interpersonal Skill and Responsibility

4.1 Perform interpersonal communication skills to establish and enhance personal and work-based relationships.

4.2 Perform the role of a leader and working team member appropriately

5. Numeral Analysis Skills, Communication, and Use of Information Technology

5.1 Demonstrate the statistical analysis and its interpretation

5.2 Communicate clearly and effectively to an array of audiences for a range of purposes.

5.3 Use information technology effectively to support the study, research, and efforts to accomplish a specific purpose

Relations between CLOs and PLOs

Course Objectives (CLOs)	Program Learning Outcomes (PLOs)							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1 Describe the principle of health-related data to guide management decision-making	√	√						
CLO2 Identify the epidemiological surveillance databases into planning to improve health system	√			√				
CLO3 Analyze the quantitative and qualitative from different health sectors in accessing, appraising, interpreting, synthesizing, and utilizing research evidence in decision-making				√		√		√
CLO4 Purpose the policy recommendations using					√		√	√

Course Objectives (CLOs)	Program Learning Outcomes (PLOs)							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
the health and services data to enhance the improvement of primary health care								

Program Learning Outcomes

PLO1 Exhibit responsibility, discipline, and honesty according to organizational rules, academic and professional ethics, and morality.

PLO2 Explain the interconnection of multidisciplinary knowledge associated with primary health care management.

PLO3 Design research in primary health care management based on systematic process.

PLO4 Defend in significant ways with questions or points of view or controversies about the area of the primary health care system.

PLO5 Interact professionally when working as a team as both leader and member for solving and managing work assigned.

PLO6 Perform statistical data analysis as they support evaluating, planning, and managing the primary health care system.

PLO7 Communicate clearly and effectively to an array of audiences for a range of purposes.

PLO8 Use information technology effectively to support the study, research, and their efforts to accomplish a specific purpose.